

XXVI.—*Descriptions of Three new Freshwater Fishes from South America, presented to the British Museum by Herr J. Paul Arnold.* By C. TATE REGAN, M.A.

1. *Cichlosoma biocellatum.*

Allied to *C. coryphænoides*, Heck. Depth of body $2\frac{1}{4}$ in the length, length of head $2\frac{3}{4}$. Snout a little longer than eye, the diameter of which is $\frac{1}{4}$ in the length of head; interorbital width 3 in the length of head. Fold of the lower lip not continuous; jaws equal anteriorly; maxillary not quite reaching the vertical from anterior edge of eye; depth of præorbital nearly $\frac{3}{4}$ the diameter of eye; cheek with 6 series of scales; 8 gill-rakers on the lower part of the anterior arch. 31 scales in a longitudinal series, 5 in a transverse series from origin of dorsal to lateral line, 4 between lateral line and sheath at base of anterior part of soft dorsal. Dorsal XIX 9; origin above opercular cleft; spines subequal from the seventh to the sixteenth, thence increasing to the last, which is $\frac{2}{3}$ the length of head; soft fin pointed, when laid back reaching the middle of caudal. Anal VIII 8. Pectoral shorter than the head, extending to above the third anal spine. Caudal rounded. Caudal peduncle $\frac{2}{3}$ as long as deep. Body with 8 dark cross-bars; third and fourth joined by an oblong blackish spot, edged with whitish, below the lateral line; in front of this a dark longitudinal band running forward to the eye; a blackish ocellus on the upper part of the base of the caudal fin; vertical fins with series of dark spots.

A single specimen, 80 mm. in total length, from Mañaos, Rio Negro.

C. coryphænoides has XVI 12-14 dorsal and VI-VII 9-11 anal rays; the spines are longer and stronger than in *C. biocellatum*, from which it also differs in coloration and in the form of the head.

2. *Otocinclus arnoldi.*

Depth of body $4\frac{1}{2}$ in the length, length of head $3\frac{1}{5}$. Diameter of eye $5\frac{1}{2}$ in the length of head, interorbital width 2; snout as long as postorbital part of head; supraoccipital without median ridge, strongly elevated posteriorly, its extremity on the level of the origin of dorsal. Scutes not carinate, 25 in a longitudinal series; abdomen with 3 longitudinal series of plates. Dorsal I 7; origin above that of the pelvics; no adipose fin. Anal I 5. Pectoral spine extending beyond

base of pelvics. Caudal emarginate. Caudal peduncle $2\frac{2}{3}$ as long as deep. A rather broad dark longitudinal band along the middle of the side, ending at the base of the caudal; vertical fins barred with 3 to 5 series of dark spots.

A single specimen, 55 mm. in total length, from the La Plata.

Allied to *O. affinis*, Steind., which has a median ridge on the supraoccipital and the fins unspotted, and to *O. vittatus*, Regan, which has the supraoccipital less elevated, the scutes fewer, and the coloration somewhat different.

3. *Pæcilia heteristia*.

Depth of body about $3\frac{1}{2}$ in the length, length of head nearly 4. Snout shorter than eye, the diameter of which is 3 in the length of head; interorbital width more than $\frac{1}{2}$ the length of head. 27 or 28 scales in a longitudinal series. Dorsal 6-7; origin equidistant from end of snout and middle (σ) or posterior part (♀) of caudal fin; last two rays, in the male, produced into long filaments. Anal 8; origin in advance of that of the dorsal; fin pointed (♀) or modified into an intromittent organ which is a little shorter than the head (σ). Pectoral a little shorter than the head; pelvic fins longer in the male than in the female. Caudal rounded. Olivaceous; edges of scales darker; some blackish vertical streaks on the side; a vertically expanded blackish spot at the base of the caudal fin; male with a short blackish stripe near the upper edge of the caudal fin.

Two specimens, 35 mm. in total length, from Para.

PROCEEDINGS OF LEARNED SOCIETIES.

GEOLOGICAL SOCIETY.

December 16th, 1908.—Prof. W. J. Sollas, LL.D., Sc.D., F.R.S.,
President, in the Chair.

The following communication was read:—

‘On the Igneous and Associated Sedimentary Rocks of the Tourmakeady District (County Mayo).’ By Charles Irving Gardiner, M.A., F.G.S., and Prof. Sidney Hugh Reynolds, M.A., F.G.S. With a Palæontological Appendix by Frederick Richard Cowper Reed, M.A., F.G.S.

The general succession of the Ordovician Rocks of the district appears to be as follows:—